



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/018,976

03/14/2002

Manfred Kogler

1406/34

3027

25297

7590

09/20/2006

JENKINS, WILSON, TAYLOR & HUNT, P. A.
3100 TOWER BLVD
SUITE 1200
DURHAM, NC 27707

EXAMINER

GHULAMALI, QUTBUDDIN

ART UNIT

PAPER NUMBER

2611

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/018,976	KOGLER, MANFRED	
	Examiner	Art Unit	
	Qutub Ghulamali	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/23/2006 has been entered.

Response to Arguments

2. Applicant's arguments, see pages 6-10, filed 08/23/2006, with respect to the rejection(s) of claim(s) 1-9 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly discovered art:

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chung (USP 5,058,047) in view of Mathe (USP 6,389,069) and further in view of Abdelilah et al (USP 6,661,837).

Regarding claim 1, Chung discloses a codec circuit: having a programmable digital bandpass filter (30), for matching the filter characteristics of the codec circuit to a transmitted PCM signal (col. 4, lines 9-13, 19-33, 35-38), having at least one programmable digital high-pass filter (32). Chung however, does not explicitly disclose at least one programmable digital low-pass filter connected in series, wherein the filter coefficients for the programmable digital high-pass and low-pass filters are set, by means of a signal identification device for identification of a PCM signal transmitted through the codec circuit, as a function of the transmitted PCM signal in order to vary a bandpass filter characteristic for the programmable digital bandpass filter.

Mathe in a similar field of endeavor discloses (fig. 1):

at least one programmable digital low-pass filter (30-38) connected in series with the high pass filter (14) (col. 3, lines 1-15, 49-60; col. 5, lines 9-16; col. 8, lines 20-27). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use programmable high-pass and low-pass filters as taught by Mathe in the circuit of Chung because it can allow better control of lower and upper signal limits with reduced signal errors with control over the composite transfer function of the programmable digital filter and at the same time minimize or mitigate power consumption. However, the combined arts of Chung and Mathe does not explicitly disclose filter coefficients for the programmable digital high-pass and low-pass filters

Art Unit: 2611

are set by means of a signal identification device for identification of a PCM signal transmitted through the codec circuit, as a function of the transmitted PCM signal in order to vary a band-pass filter characteristic for the programmable digital band-pass filter. Abdelilah in a similar field of endeavor discloses identification of a PCM signal transmitted through the codec circuit, as a function of the transmitted PCM signal in order to vary a band-pass filter characteristic for the programmable digital band-pass filter (the analog signals transmitted from the V.34 modems are sampled at 8000 times per second by a codec upon reaching the PSTN with each sample being represented or quantized by an eight-bit pulse code modulation (PCM) codeword, the codec uses 256, non-uniformly spaced, PCM quantization levels defined according to either the μ -law or A-law companding standard) (col. 2, lines 41-48; col. 13, lines 65-67; col. 14, lines 1-10). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to utilize an identified PCM signal transmitted through the codec circuit as taught by Abdelilah in the combination of Chung and Mathe because filter coefficients for the programmable high pass and low pass filters can be set to match the sampling rate of the transmitter with the sampling rate of the receiver by interpolation (col. 8, lines 36-49, 53-60).

Regarding claim 2, Chung discloses setting filter coefficients are stored in coefficient memory devices, which are associated with the programmable digital high-pass and low-pass filters (col. 5, lines 21-30).

Regarding claim 3, Chung discloses the memory devices can be in the form of a random access memory (RAM) (col. 8, lines 1-3).

Art Unit: 2611

Regarding claim 4, Chung discloses memory devices are connected via coefficient setting lines to the signal identification device (col. 7, lines 64-67; col. 8, lines 1-3).

Regarding claim 5, Chung discloses programmable digital filters ((x) 30 and (40)) can be each seventh-order filters (col. 3, lines 23-30; col. 4, lines 35-37, 52-55).

Regarding claims 6-9, Chung discloses programmable filters whose roll-off (cut-off) frequencies of the band-pass filter are set by setting the filter coefficients of the digital high-pass filter quite easily and is well known in the art of filter design.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patents:

US patent (6,341,360) to Abdelilah et al.

US patent (6,006,189) to Strawczynski et al.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qutub Ghulamali whose telephone number is (571) 272-3014. The examiner can normally be reached on Monday-Friday, 7:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone

Art Unit: 2611

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

QG.
September 15, 2006.


MOHAMMED GHAYOUR
SUPERVISORY PATENT EXAMINER